## WHAT IS CLAIMED IS:

1. A process for producing an allyl-containing compound represented by following Formula (3):

$$R^7 - Y \xrightarrow{R^3} R^4 \qquad (3)$$

wherein  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  may be the same as or different from one another and each represent hydrogen atom or an organic group;  $R^7$  represents an organic group; and Y represents oxygen atom or sulfur atom, the process comprising the step of reacting an allyl ester compound represented by following Formula (1):

wherein  $R^1$  represents hydrogen atom or an organic group; and  $R^2$ ,  $R^3$ ,  $R^4$ ,  $R^5$  and  $R^6$  are as defined above, with a compound represented by following Formula (2):

$$R^7 - Y - H \tag{2}$$

wherein  ${\ensuremath{\mathsf{R}}}^7$  is an organic group; and Y is as defined above, in the presence of at least one transition element compound.

2. The process according to claim 1, wherein the transition element compound is a compound of an element

belonging to Group VIII of the Periodic Table of Elements.

- 3. The process according to claim 1, wherein the transition element compound is an iridium compound.
- 4. The process according to claim 1, wherein the compound represented by Formula (2) is one selected from the group consisting of alcohols, phenols, thiol compounds, carboxylic acids and thiocarboxylic acids.